

**DESIGN EXCEPTION REPORT**  
**ATTACHMENT A**  
**CONTROLLING CRITERIA**

**City/Town:** \_\_\_\_\_ **Project File No.:** \_\_\_\_\_

**Design Speed**

Refer to Highway Design Manual (HDM), Table 3.6.

Desirable \_\_\_\_\_  
Minimum \_\_\_\_\_  
Posted \_\_\_\_\_  
Proposed \_\_\_\_\_

☐ Design Exception Required.

**Lane Width**

Refer to HDM Table 5.1.

Desirable \_\_\_\_\_  
Minimum \_\_\_\_\_  
Proposed \_\_\_\_\_

☐ Design Exception Required.

**Shoulder Width**

Refer to HDM Table 5.1 (See Note 3).

**Right**

Desirable \_\_\_\_\_  
Minimum \_\_\_\_\_  
Proposed \_\_\_\_\_

☐ Design Exception Required.

**Left**

Desirable \_\_\_\_\_  
Minimum \_\_\_\_\_  
Proposed \_\_\_\_\_

☐ Design Exception Required.

**Horizontal Alignment**

Refer to HDM Table 4.2 (Minimum Radius).

Minimum \_\_\_\_\_  
Proposed \_\_\_\_\_

PI Sta. _____	PI Sta. _____	PI Sta. _____	PI Sta. _____
Radius _____	Radius _____	Radius _____	Radius _____

☐ Design Exception Required.

Refer to HDM Section 4.1.1.2 (Compound Curves).

Check all compound curves. The radius of the flatter curve must be at least 50% greater than that of the sharper curve.

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(Horizontal Alignment cont'd)

Length of Curve.

Lmin = 30 V (freeways)

Lmin = 15 V (other major highways)

V = Design Speed

☐ Design Exception Required.

**Vertical Alignment**

Refer to HDM Table 4.4 (Crest Vertical Curves) K.

Minimum \_\_\_\_\_

Proposed \_\_\_\_\_

PVI Sta. \_\_\_\_\_

K \_\_\_\_\_

PVI Sta. \_\_\_\_\_

K \_\_\_\_\_

PVI Sta. \_\_\_\_\_

K \_\_\_\_\_

PVI Sta. \_\_\_\_\_

K \_\_\_\_\_

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Refer to HDM Table 4.5 (Sag Vertical Curves) K.

Minimum \_\_\_\_\_

Proposed \_\_\_\_\_

PVI Sta. \_\_\_\_\_

K \_\_\_\_\_

PVI Sta. \_\_\_\_\_

K \_\_\_\_\_

PVI Sta. \_\_\_\_\_

K \_\_\_\_\_

PVI Sta. \_\_\_\_\_

K \_\_\_\_\_

☐ Design Exception Required.

**Grades**

Refer to HDM Table 4.3.

Maximum \_\_\_\_\_

Proposed \_\_\_\_\_

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**Stopping Sight Distance**

Refer to HDM Table 3.9.

Minimum \_\_\_\_\_

Desirable \_\_\_\_\_

Proposed \_\_\_\_\_

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(Stopping Sight Distance cont'd)

Refer to HDM Figure 4.6 and Figure 4.7 (Stopping Sight Distance Middle Ordinate).

Minimum \_\_\_\_\_

Desirable \_\_\_\_\_

☐ Design Exception Required.

**Cross Slope**

Refer to HDM Section 5.1.5.

Bit Conc. 0.020

Cem Conc. 0.016

Proposed \_\_\_\_\_

☐ Design Exception Required.

**Superelevation**

Refer to HDM Section 4.3. Check required values for superelevation rates, transitioning, runoff, banking, etc. for all lanes and shoulders.

☐ Design Exception Required.

**Horizontal Clearance**

Refer to AASHTO A Policy on Geometric Design of Highways and Streets, page 322.

Minimum 18 inches beyond face of curb.

☐ Design Exception Required.

**Bridge Only Criteria**

**Lane and Shoulder Width**

Refer to AASHTO A Policy on Geometric Design of Highways and Streets, page 390.

☐ Design Exception Required.

**Structural Capacity**

Refer to Chapter 3 of MassHighway Bridge Manual.

☐ Design Exception Required.

**Vertical Clearance**

Refer to HDM Table 4.6.

Minimum \_\_\_\_\_

Proposed \_\_\_\_\_

☐ Design Exception Required.